

## Project Documentation Checklist

Route \_\_\_\_\_ Project No. \_\_\_\_\_ City/County \_\_\_\_\_

Description \_\_\_\_\_ Engineer \_\_\_\_\_

### Check Appropriate Items

#### REFERENCE DATA

##### Maps:

- USGS – Quad., Scale, Date
- USGS – Other
- Local Zoning Maps
- Flood Hazard Delineation (Quad.) for 100 Yr.
- Flood Plain Delineation (HUD)
- Local Land Use
- Soils Maps
- Geologic Maps
- Aerial Photos – Scale, Date

##### Studies By External Agencies:

- FEMA Flood Insurance Studies
- SCS Watershed Studies
- USGS Gages & Studies
- Interim Flood Plain Studies
- Water Resource Data
- Regional Planning Data
- Forestry Service
- Utility Company Plans

##### Studies By Internal Sources:

- Hydraulics Section Records
- Flood Records (High Water, Newspaper)

#### HYDROLOGY

##### Technical Resources:

- Part IV, *Indiana Design Manual*
- INDOT Directives
- Technical Library

##### Discharge Calculations:

- Drainage Areas
- Gaging Data – Regional Analysis
- Regression Equations (if no other method available)
- Area-Discharge Coordinated Curves
- Log-Pearson Type III Gage Rating (B 17B)
- Computer Programs: HYDRO, SCS (TR-20), HEC-1

#### HYDROLOGY (Cont'd.)

##### High Water Elevations:

- INDOT Survey
- External Sources
- Personal Reconnaissance

##### Flood History:

- External Sources
- Personal Reconnaissance
- Maintenance Records
- Photographs
- IDNR Historic Flood Profiles

#### HYDRAULIC DESIGN

##### Calibration of High Water Data:

- Discharge and Frequency of H.W. el.
- Influences Responsible for H.W. el.
- Analyze Hydraulic Performance of Existing Facility for 100 Yr.
- Analyze Hydraulic Performance of Proposed Facility

##### Design Appurtenances:

- Dissipators
- Riprap
- Erosion and Sediment Control

##### Technical Aids:

- Indiana Design Manual*, Part IV
- INDOT and FHWA Directives
- Technical Library

##### Computer Programs:

- FESWMS-2DH
- HEC-RAS
- HEC-2
- HYDRAIN
- HY8
- WSPRO

#### HYDROLOGIC-HYDRAULIC REPORTS

##### Data Reports:

- Environmental Reports
- Reconnaissance Report
- Hydraulic Recommendations from Engineer's Report
- INDOT Data